

We Claim:

1. A method of feeding sheets to a sheet-processing machine, which comprises the following steps:

placing a sheet with a leading edge, as defined by a sheet transport direction through the machine, against front lays on a feed table with a transport device;

smoothing the leading edge of the sheet by imparting to the sheet a curvature in the sheet transport direction; and

subsequently gripping the sheet with a further transport device.

2. The method according to claim 1, wherein the sheet-processing machine is a printing press and the sheets are cyclically fed to the further transport device.

3. The method according to claim 1, which comprises imparting a downward curvature on the sheet leading edge.

4. The method according to claim 1, which comprises imparting an upward curvature on the sheet leading edge.

5. An apparatus for feeding sheets to a sheet-processing machine, comprising an assembly configured to carry out the

method according to claim 1, said assembly having a feed table, front lays for aligning a sheet on said feed table, a transport device for placing a sheet at said front lays, and a further transport device for transporting the sheet into the sheet-processing machine.

6. In a sheet-processing machine, an apparatus for feeding sheets to the sheet-processing machine, comprising: a feed table formed with a guide surface in a feeder region thereof, said guide surface being curved in a sheet transport direction to the sheet-processing machine, and a smoothing device configured to assist in laying the sheet against said guide surface.

7. The apparatus according to claim 6, wherein said guide surface is formed with a plurality of blowing/suction nozzles transversely with respect to the sheet transport direction and forming blown air jets directed substantially in the sheet transport direction, said plurality of blowing/suction nozzles being configured to assist in laying the sheet against said curved guide surface.

8. The apparatus according to claim 6, which further comprises a plurality of top lays configured for assisting in laying the sheet against said curved guide surface and adapted to a curvature of said curved guide surface.

9. The apparatus according to claim 8, wherein said curved guide surface and said curved top lays together form a pocket for receiving therein the sheet leading edge.

10. The apparatus according to claim 6, wherein said curved guide surface is formed with a plurality of suction openings arranged transversely with respect to the sheet transport direction.

11. The apparatus according to claim 10, which comprises a vacuum device configured to apply a vacuum to said suction openings chronologically one after another, starting from a center and proceeding laterally outwardly.

12. The apparatus according to claim 11, wherein said vacuum device includes a rotary valve.

13. The apparatus according to claim 11, wherein said vacuum device includes electrically driven control valves.

14. The apparatus according to claim 11, wherein said vacuum device includes magnetically driven control valves.

15. In an apparatus for feeding sheets to a sheet-processing machine, an assembly for smoothing a leading edge of a sheet

by carrying out the method according to claim 1, said assembly having a feed table formed with a plurality of suction openings in a feeder region thereof, said openings being arranged transversely with respect to a sheet transport direction and including a center opening, and a vacuum device configured to sequentially apply a vacuum to said suction openings one after another, starting from said center opening and in each case laterally outward.

16. In an apparatus for guiding sheets to a sheet-processing machine, the apparatus having a feed table with a feeder region, the improvement which comprises: the feed table having a plurality of suction openings formed in the feeder region and arranged transversely with respect to a sheet transport direction, and a vacuum device configured to sequentially apply a vacuum to said suction openings one after another, starting from a center opening and in each case laterally outward.

17. The apparatus according to claim 16, wherein said vacuum device includes a rotary valve.

18. The apparatus according to claim 16, wherein said vacuum device includes electrically driven control valves.

19. The apparatus according to claim 16, wherein said vacuum device includes magnetically driven control valves.